

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sean K. Lehman

Attorney Docket : IL-10883

Serial No. : 10/814,435

Art Unit : 3737

Filed : March 30, 2004

Examiner : J. Lamprecht

For : Radial Reflection Diffraction Tomography

DECLARATION UNDER 37 CFR §1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Sean K. Lehman, hereby declare that I am a citizen of the United States of America and a resident of Pleasanton, California.

I have a PhD in Applied Science from the University of California, Davis.

I was an engineer in the Engineering Directorate with the University of California, Lawrence Livermore National Laboratory at Livermore, California. I am currently an engineer in the Engineering Directorate with the Lawrence Livermore National Security, LLC, Lawrence Livermore National Laboratory at Livermore, California.

I have worked in the engineering/applied physics field at Lawrence Livermore National Laboratory for 20 years.

I have read the office action and would like the examiner to consider my comments.

The attached copy of my paper titled "Radial Reflection Diffraction Tomography for Intravascular Imaging", dated January 4, 2001, incorporated herein by reference, describes the subject invention, and shows that I conceived the subject matter claimed in the above referenced patent application prior to the earliest possible filing date (April 19, 2002) of U.S. Patent Application Publication No.: 2003/0199767 A1 (Cespedes et al.). For example, page 1, paragraph 2 of the attached paper states:

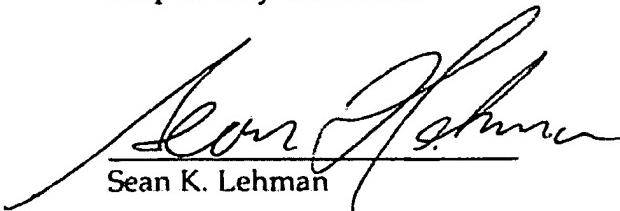
We propose to develop a new imaging modality, diffraction tomography, to determine plaque structure using intravascular ultrasound (IVUS) probes. The technique will still make use of the back-scattered field received by the cylindrical IVUS probe. However, the technique will provide improved imaging capability because it will make use of both the phase and amplitude of the reflected signal and will properly account for the wave nature of the propagation. The technique is referred to as "radial reflection diffraction tomography" because of the radial configuration of the transducer and the tomographic paradigm is used to reconstruct the structure of the tissue from the reflected waves.

The above statement as well as the body of the paper clearly shows conception of the use of a wave-based algorithm to reconstruct the structure of the tissue from the reflected waves.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both,

under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,



Sean K. Lehman

Dated: December 18, 2008